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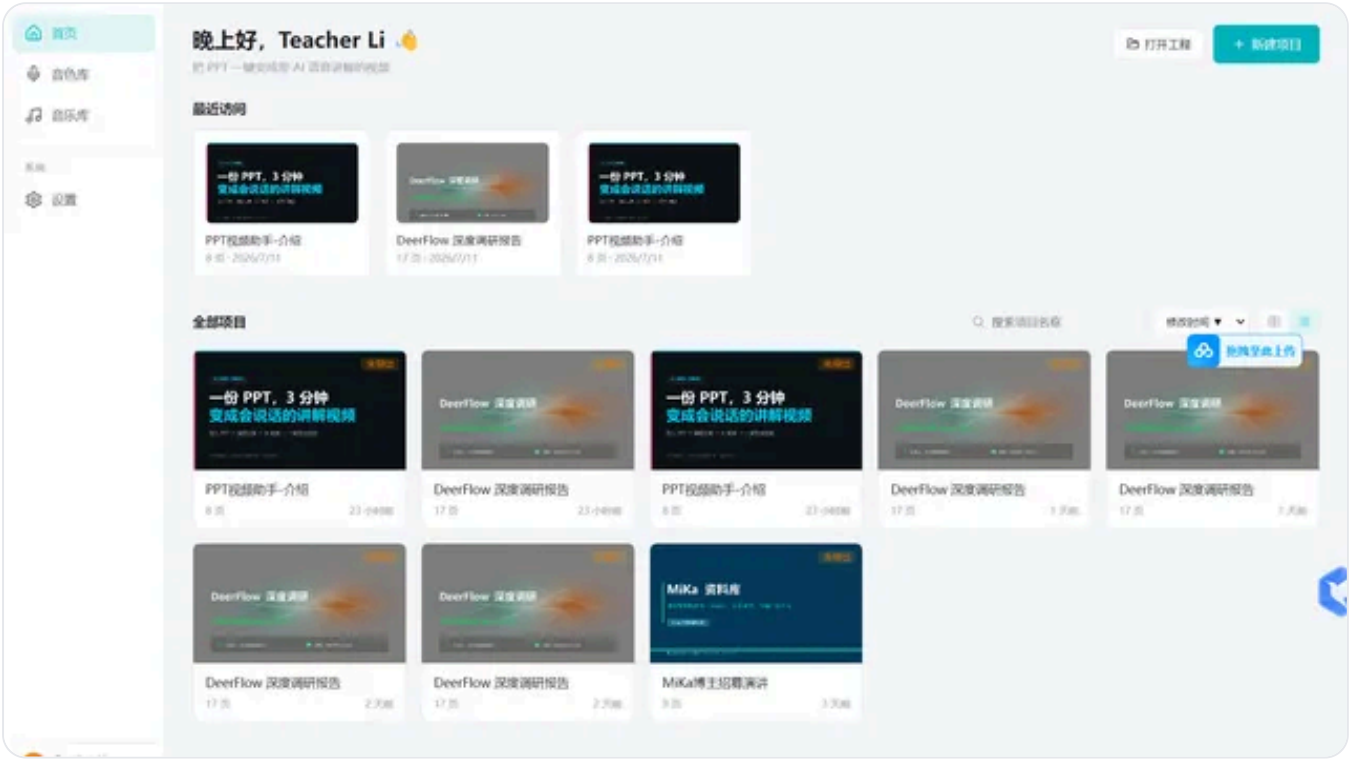
Electron

A framework for building desktop apps with web technologies.



About

Electron is a desktop app framework that lets you build cross-platform desktop apps with JavaScript, HTML, and CSS. It packages Chromium and Node.js together so web developers can ship native-feeling apps for macOS, Windows, and Linux from one codebase.

What is Electron

Electron is a desktop app framework for building cross-platform desktop apps with JavaScript, HTML, and CSS. It combines Chromium and Node.js so the same project can render a modern interface and access system capabilities from one stack. The project is open source, maintained by an active community, and hosted under the OpenJS

into desktop app development without switching languages or rebuilding their UI layer from scratch.

Because Electron bundles Chromium, the app's rendering target is stable and stays aligned with current web platform features. Because it also includes Node.js, Electron gives developers access to the npm ecosystem and to native add-on code when a project needs functionality beyond standard browser APIs. That combination is why Electron is often used for desktop apps that need rapid iteration, predictable rendering, and broad platform support.

Key features

Electron focuses on the parts of desktop app development that are usually time-consuming or platform-specific. It supports macOS, Windows, and Linux, including all supported architectures listed by the project. It also ships with release practices tied closely to Chromium, which helps security fixes arrive quickly when upstream browser updates are available.

- Cross-platform desktop apps from one JavaScript, HTML, and CSS codebase
- Chromium and Node.js bundled together for UI and backend-style logic
- Access to npm packages and custom native add-ons
- Main process APIs for menus, dialogs, notifications, and window controls
- Auto-updates for macOS and Windows through the autoUpdater module
- Installers for .dmg, .msi, and .rpm through community tooling
- Distribution support for the Mac App Store, Microsoft Store, and Snap Store
- Crash reporting through the crashReporter module and Crashpad

Electron also fits into modern frontend workflows. The project references common tools and libraries such as React, Vue.js, Next.js, Tailwind CSS, Bootstrap, Three.js, Angular, TypeScript, webpack, Playwright, Testing Library, and Sass. That makes Electron a practical desktop app framework for teams that already work with the web stack.

How to use it

Getting started with Electron usually begins with a template or a direct install.

- Install Electron directly from npm if you prefer to assemble the project yourself.
- Build the interface in HTML, CSS, and JavaScript, then connect it to Electron's main process APIs for desktop features.
- Choose the Electron version you want to target, including stable, prerelease, or nightly channels for experimentation.
- Use Electron Fiddle for small tests, quick experiments, and shareable examples.

Electron Forge is the project's batteries-included toolkit for scaffolding, bundling, and publishing Electron apps. Electron Fiddle is a separate tool for trying out snippets or mini prototypes, and it can save a project locally or as a GitHub Gist. The docs also show direct installation with npm for developers who want a more manual workflow.

Who it is for

Electron is for web developers who want to build desktop apps without learning a separate native UI stack. It is also a good fit for product teams that need a single codebase for macOS, Windows, and Linux, especially when the app depends on web UI libraries or npm packages.

Electron can suit:

- startups shipping a desktop companion app
- teams maintaining an existing web app and extending it to desktop
- enterprise software makers that want a familiar JavaScript workflow
- developers who need access to desktop menus, notifications, and window controls
- builders who want packaging, auto-updates, and crash reporting in one ecosystem

It is less attractive for teams that want a very lightweight native shell or that need a framework with minimal runtime footprint. Electron prioritizes web compatibility and development convenience, not a tiny binary size.

What to know before you use it

Electron is not a "write once, no platform work ever" shortcut. You still need to handle app behavior, packaging choices, update strategy, and store-specific distribution rules for the platforms you target. The project provides tooling and APIs, but it does not

A few practical caveats matter before you adopt Electron as your desktop app framework:

- The bundled Chromium version gives you a stable target, but it also means you should track Electron releases to stay current on security fixes.
- Auto-update support is documented for macOS and Windows, while Linux distribution often relies on separate packaging and update approaches.
- The project mentions community-supported installer tooling; that means final packaging details may vary by toolchain and target store.
- Crash reporting can use third-party services or your own Crashpad server, so you still need to choose an operational setup.
- Electron is powerful for cross-platform desktop apps, but official native app guidelines and store policies still apply when you publish.

If you are evaluating Electron as a desktop app framework, the safest path is to prototype with Electron Fiddle, then move to Electron Forge or a direct npm setup once you know the app's packaging and update needs. For release and compliance details, use the official docs and store requirements rather than relying on assumptions from the framework alone. Electron remains a strong choice when you want cross-platform desktop apps with JavaScript, HTML, and CSS, but you should still validate the full shipping plan before launch.

FAQ

Is Electron free to use?

Which operating systems does Electron support?

Which platforms does Electron support?

How do I start a new Electron project?

How do I test my Electron app?

What are some well-known apps built with Electron?

What is Electron Fiddle used for?

How does Electron handle security updates?

Is Electron a good choice for publishing in app stores?

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Platform	Web, macOS, Windows, Linux
Launched	Aug 2026
Updated	16 days ago
Verified	1 months ago

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